



**Utah Division of Air Quality
New Source Review Section**

**Form 4
Flare Systems**

Date_____

Company_____

Site/Source_____

Equipment Information			
1. Manufacturer: _____ Model no.: _____ (if available)	2. Design and operation shall be in accordance with 40CFR63.11. In addition to the information listed in this Form , provide the following: an assembly drawing with dimensions, interior dimensions and features, flare=s maximum capacity in BTU/hr.		
3.Characteristics of Waste Gas Stream Input			
Components	Min. Value Expected (scfm @ 68°, 14.7 psia)	Ave. Value Expected (scfm @ 68°F, 14.7 psia)	Design Max. (scfm @ 68°F, 14.7 psia)
a.			
b.			
c.			
d.			
e.			
f.			
g.			
h.			
4. % of time this condition occurs			
5. Flow rate: Minimum Expected Design Maximum Temp. °F Pressure (psig)			
Waste Gas Stream _____ _____ _____			
Fuel Added to Gas Stream _____ _____ _____			
Heat content of the gas to be flared _____ BTU/ft ³			
6. Number of pilots	7. Type of fuel	8. Fuel Flow Rate (scfm 70°F & 14.7 psia) per pilot	

**Flare Systems
Form 4
(Continued)**

Steam Injection	
9. Steam pressure (psig) Minimum Expected _____ Design Maximum _____	10. Total steam flow Rate (lb/hr)
11. Temperature °F	12. Velocity (ft/sec)
13. Number of jet streams	14. Diameter of steam jets (inches)
15. Design basis for steam injected (lb steam/lb hydrocarbon)	
Water Injection	
16. Water pressure (psig) Minimum Expected _____ Design Maximum _____	17. Total Water Flow Rate (gpm) Minimum Expected _____ Design Maximum _____
18. Number of water jets	19. Diameter of Water jets (inches)
20. Flare height	21. Flare tip inside diameter (ft)
Emissions Calculations (PTE)	
22. Calculated emissions for this device PM ₁₀ _____ Lbs/hr _____ Tons/yr NO _x _____ Lbs/hr _____ Tons/yr SO _x _____ Lbs/hr _____ Tons/yr VOC _____ Lbs/hr _____ Tons/yr HAPs _____ Lbs/hr (speciate) _____ Tons/yr (speciate) Submit calculations as an appendix.	

- NOTE: 1. **Submit this form in conjunction with Form 1 and Form 2.**
2. Call the Division of Air Quality (DAQ) at **(801) 536-4000** if you have problems or questions in filling out this form. Ask to speak with a New Source Review engineer. We will be glad to help!

Instructions

1. Specify the manufacturer and model number.
2. Supply an assembly drawing, dimensioned and to scale of the interior dimensions and features of the equipment
3. Supply the specifications of the fuel components in the waste gas stream.
4. Indicate what percent of the time the waste gas stream is at minimum, average, and maximum value.
5. Supply the specifications of the total waste gas stream and the fuel added to the gas stream.
6. Indicate the number of pilots in the flare.
7. Specify the type of fuel to be used.
8. Specify the fuel flow rate.
9. Indicate the minimum and design maximum steam pressure for steam injection.
10. Supply the steam flow rate.

11. Supply the temperature of the steam.
12. Specify the velocity of the steam.
13. Indicate the number of jet streams.
14. Give the diameter of the steam jets.
15. Give the design basis for the steam injection.
16. Specify the water pressure at minimum and design maximum using water injection.
17. Give the total water flow rate at minimum and design maximum.
18. Supply the number of water jets.
19. Give the diameter of the water jets.
20. Supply the flare height.
21. Supply the flare tip inside diameter.
22. Supply calculations for all criteria pollutants and HAPs. Use AP42 or Manufacturers data to complete your calculations.

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